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## THE UNITED STATES COTTON FUTURES ACT

Confronted with the alternative of a prohibitive tax, the New York Cotton Exchange, after years of defiance, has reformed its future contract. Effective February 18, the exchange adopted a system of dealing in futures largely dictated by the terms of the United States Cotton Futures act. This act, passed at the last session of Congress, is in turn based largely on recommendations in the report of the Bureau of Corporations, made some years ago after an extended investigation. There is, however, this important exception: the Bureau of Corporations favored a reform of discredited methods by the exchange itself, whereas the Cotton Futures act subjects the exchange to constant and intimate regulation by the federal government through the Secretary of Agriculture. For this the exchange is chiefly indebted to those recalcitrant members who for years not only ignored the strictures of the Bureau of Corporations but resisted the wishes of a large element of its own membership as well.

Broadly speaking, the troubles of the New York Cotton Exchange originated in a decline in "spot" dealings in cotton at New York. From sales of over 430,000 bales annually in the 70's, the annual average in the 90's fell to less than 160,000 bales. This shrinkage in spot business was largely due to the introduction of more favorable through rates of freight from the South direct to mill centers, partly to the shifting of cotton manufacture to the cotton-growing states, and partly to other broad changes in the conduct of the cotton business.

The limited business in spot cotton done at New York has often been cited as evidence that there is no real need or justification for a cotton exchange at that port. Members of the cotton exchange contend, however, that its usefulness, and its right to exist, should not be judged by the volume of spot sales in the New York market, but, instead, that it is the facilities for organized trading—banking capital, a foreign exchange market, and a speculative clientele—which determine the advisability of locating the exchange at a northern city remote from the cotton belt.

There must, of course, be some stock of cotton to protect the

commitments of sellers. It was because of the difficulty in attracting such a stock, in large measure, that the New York Cotton Exchange years ago made those unfortunate changes in its rules which, demoralizing its contract market, provoked intense hostility in the cotton trade, brought the severe condemnation by the Bureau of Corporations, and eventually threatened the very existence of the exchange.

By far the most mischievous of these early changes in its rules, and one now sharply reversed by the Cotton Futures act, related to the method of establishing price differentials, or price "differences" as they are called, between middling cotton and other tenderable grades. For it must be clearly understood and constantly kept in mind, that the cotton-future contract is a *basis* contract. It does not call for the delivery of any specific grade of cotton. Instead, the seller has the privilege of making delivery from a large number of grades. If he delivers middling, the basis grade, he receives the exact price named in the contract. Other grades are deliverable at "differences" on or off the contract price for basis middling, according as they grade above or below middling in quality. The seller's choice is complete. He may deliver any tenderable grade or a mixture of various grades. Ordinarily tenders at New York are badly mixed and consist mainly of so-called surplus grades, *i.e.*, grades which for the time being are slowest of sale in the spot market.

The reason for this adoption of a basis contract instead of a specific contract is a simple one, *viz.*, the proportions of the numerous grades to the total crop vary widely from season to season, and, moreover, are liable to sudden change because of severe storm—which lowers the grade of much cotton by beating it into the dirt—or by early frost, which may stain many bolls, or by other unforeseeable and unpreventable contingencies. Hence, sellers could not be found who would commit themselves to forward sales for a specific-grade contract in volume sufficient to make a practical future market. If they did, they would always have hanging over them a sword of Damocles in the shape of a disastrous "corner." This, in effect, is the argument for a basis contract, and it appears to be conclusive.

Granted then, that a basis contract is the only practicable contract for organized future trading in cotton, critics of the New York Cotton Exchange have contended—and this was the position taken by the Bureau of Corporations—that in return for

this unusual and immensely valuable privilege granted the seller, the buyer, if he does not receive middling cotton, should at least receive cotton of a fair equivalent in money value. In a word, they contend that the contract differences between middling cotton, the basis grade, and other tenderable grades shall always conform to the real differences existing in the spot market, under competition.

This does not mean, of course, that the buyer will be protected from loss. If he buys his future contract at 10 cents per pound, and at the time of delivery is tendered middling, he must, of course, pay that price, even though middling in the spot market be selling at only 5 cents. The contention is that if the buyer is tendered other grades than middling he should not be forced to take them at arbitrary "differences" which may aggravate his loss, but that he should get them at the true differences on or off middling existing in the spot market *at time of delivery*.

This method of determining the contract differences, *i.e.*, the use of actual differences prevailing in the spot market, and conveniently called the commercial difference system, is the only system ever employed or even seriously considered on two of the world's leading cotton exchanges, those at Liverpool and New Orleans. Moreover, it was for many years the only system employed at New York. Gradually, however, the diminishing stock of cotton at New York and the attendant difficulties in accurate determination of grade differences, together with increased opportunity for manipulating such differences in order to deceive arbitration committees, led to the abandonment of the commercial difference principle. A revision committee (the Committee on Revision of Quotations of Spot Cotton) was created with power to fix the contract grade differences for definite periods. At first, monthly revision dates were provided, except in the summer season; but from 1897 on, until very recently, only two revisions yearly were permitted—one on the second Wednesday in September, holding good until the third Wednesday of November, and the second holding from November until the following September. In practice, meetings of the revision committee, especially the September sessions, frequently resulted in no change in the contract differences. Consequently, these differences often remained unaltered for a full year or more.

Here, then, was a system of committee fiat arbitrarily injected into a mechanism for handling commerce in a great staple. Like many other fiat experiments in trade, it failed miserably. The law

of supply and demand operates, of course, on the relative values of the different grades as well as on the value of middling itself. Consequently, from time to time the fiat differences of the exchange inevitably became out of line with the differences in the spot market and one or another of the contract grades thereby became overvalued as compared with middling. That is, the fiat difference to be added to the contract price for a grade better than middling would be greater than the difference for the same grade in the spot market, or the difference to be deducted for a lower grade would be less.

The seller, having full decision as to the selection of grades for the delivery, naturally will deliver the overvalued grades. In practice, it is true, comparatively little cotton is delivered on exchange contracts. But the underlying principle of the contract is that cotton *may* be delivered, and *must* be delivered if the buyer demands it. Otherwise operations in cotton futures would be open to all the objections of bucket-shop trading. No real friend of the cotton exchanges would for a moment deny this underlying principle.

Knowing that the contract differences could not be changed until the next revision date and fearing the delivery of overvalued grades, the holder of contracts at such times tried to escape loss by selling out his contract. But the next buyer aimed to protect himself by reducing his bid below the price he would be willing to pay if the differences were identical with those in the spot market. Thus there was caused an artificial depreciation of the value of the contract.

Of course, certain grades might be undervalued, but since the seller has complete choice as to deliverable grades, the ordinary result of this is simply to exclude such undervalued grades from contract delivery for the time being. As a practical matter, the trouble over grade differences has come from overvaluation and not undervaluation.

The evils of this overvaluation of grades and depreciation of the contract are twofold: first, they produce an undue disparity between the contract price (for a current-month future) and the current spot price of middling, and largely destroy the value of the future market for "hedging," its most legitimate function; second, this depreciated and distorted price of the future contract, flashed over the world day by day, causes great confusion and intense irritation in the cotton trade.

Take first the effect on hedging. Practically all cotton men are agreed that the paramount function of the cotton-future market is to provide a "hedge" for the cotton merchant. The essence of a hedge operation is the balancing of a speculative loss in the spot market by a speculative gain in futures (or vice versa) in such manner that a cotton merchant may largely eliminate speculative risks for himself and reckon with substantial, though not complete, certainty on a trading margin or commission. The theory is that if cotton which he buys in the spot market ahead of orders from mills declines, then a future contract sold on the exchange will likewise decline in substantially the same measure. Thus, broadly speaking, his loss on spot cotton is offset or balanced by a profit on the exchange contract sold as a hedge. If, on the other hand, cotton advances, the speculative profit thereon will presumably be offset by a loss on the future contract which must be bought back at a loss. Although the merchant could deliver his cotton on contract, if of tenderable grade, ordinarily he does not want to do this as he needs it for private transactions with spinners. He uses the exchange contract merely as a means of avoiding a speculative loss. In return for this protection he is willing to forego a speculative, as distinct from a trading, profit. He allows for such a trading profit or commission, of course, in naming the price at which he will sell to the spinner. Largely owing to the substantial protection which the hedging function has afforded when the future system has operated normally, this commission of the merchant has been sharply reduced. Hundreds of thousands of bales are ordinarily handled at a middleman's charge of not over 50 cents per bale—often less. At 10 cents per pound for cotton, this is only 1 per cent of the gross value. This means that the benefits of hedging extend to the spinner, and presumably through him to the consumer.

Absolute protection by hedging cannot be secured, and, indeed, complete protection is possible, even in theory, only for middling cotton, the basis grade. But since fluctuations in the "differences" for other grades are ordinarily small as compared with those in the price of middling, the merchant relies on his future contract, bought or sold as a hedge, as the case may be, to afford him a very substantial protection.

It is clear that the successful conduct of such hedging operations depends on the maintenance of a reasonably constant margin or parity between the price of middling cotton in the spot market

and the price of basis middling contracts on the exchange. In particular, the price of the "current" or "spot month" future should maintain a fairly constant parity with the current spot price of middling. There is ordinarily a small margin to compensate the buyer for expense and trouble in disposing of a mixed assortment of grades such as may be expected on contract deliveries.

Obviously, anything which irregularly depreciates the value of the future contract in its relation to middling impairs the usefulness of the contract as a hedge. This has happened repeatedly on the New York Cotton Exchange when the fiat differences of the exchange have become out of line with those in the spot market. An aggravated instance occurred in the season of 1906-1907 when the margin between the price of middling cotton and of current futures widened from about  $\frac{1}{2}$  cent to nearly 2 cents. This was almost entirely due to the failure of the revision committee to make the contract differences off for low grades correspond with unusually wide differences in the spot market at the time, and to the lack of opportunity for further revision during the rest of the cotton season.

This abnormal widening of the margin resulted in enormous losses to hedging merchants. In the face of an advancing tendency in the spot price of middling, their future contracts declined heavily. Thus, contracts bought as a hedge not only failed to protect them but proved a source of added loss. Speculative buyers, of course, suffered also. Hundreds, if not thousands, of these were speedily wiped out—a veritable slaughter of innocents. Since the fiat differences could not be changed for nearly a year no one was ready to receive cotton on contract. There was a strong demand for a reconsideration of the revision committee's decision, but under the rules of the exchange this could not be had. Instead, the erroneous differences of necessity worked themselves out through the contract price, bringing loss or disaster to all holders of contracts.

Those who defend such arbitrary fixing of grade differences for long periods rely in the main, or at least in large part, upon the contention that the seller must have a "calculable" contract. In other words, that the seller who intends to ship cotton to New York from the South must know in advance what he will receive for the particular grades which he is to deliver. If, when the seller made his contract, he named the grades which he would deliver, the case would be different. But ordinarily the seller himself does

not know, when he enters into his future contract, what grades he will deliver. This, as already pointed out, is why sellers want a basis contract. Since fixed contract differences are bound to be out of line, more or less frequently, with the true differences, a depreciated contract price follows as an almost inevitable consequence. In short, the argument of a "calculable" contract means that the effort to protect the few sellers who actually ship cotton to New York will more or less constantly disorganize the future market to the injury of the vast number of others using the market, either for purposes of hedging or for speculation. The arbitrary injection of this element of uncertainty into the market means that intelligent speculation becomes more or less impossible. Since the buyer cannot know what kind of cotton he will receive he cannot adjust his operations to meet a future change in grade differences in the spot market. Under the commercial difference system the buyer of contracts should not be affected by changes in the differences.

Not only may such fiat differences cause loss to the speculator and to the non-speculative cotton merchant, but they also tend to injure the cotton producer and the spinner. The distorted future prices brought about by such differences inject disorder and irritation into the cotton trade the world over.

The cotton producer in a great number of cases sells his crop at so many points—hundredths of a cent—on or off the price of New York futures. (These points on or off should not be confused with the contract differences.) Hence a distortion of the future price tends, at least, to affect the price he receives for his cotton. Elaborate price studies given in the report of the Bureau of Corporations show that in the main the influence of such distorted future prices is overcome by competition, which forces the buying merchant to pay more points on (or fewer points off), as the future price is arbitrarily depressed. But it is reasonably clear that during the process of adjustment a real and at times probably a substantial injury is done the producer. And whether the injury is real or fancied, great or small, this distorted future price has been a red rag to cotton producer and to spinner alike. Denunciation of such distorted future quotations in the South has often been violent. Yet it is hardly more severe than a formal resolution of the American Cotton Manufacturers Association adopted at Richmond, Va., in 1908, in part as follows:

It should be clearly borne in mind that the great mass of buyers of goods, particularly buyers for export, base their ideas of the value of goods upon contract quotations on the New York exchange, and that these buyers are wholly misled, therefore, as to the cost of raw material in the manufactures. Being thus misled, it takes a constant effort on their part to keep prices of the manufactured article from falling below what the manufacturer can possibly sell at. Under such circumstances erroneous market quotations become a curse to the manufacturer and to the producer, and we feel that the New York exchange must rectify its contract so as to make the contract responsive to the spot condition.

Such, in brief, are the more serious evils which have resulted from the discredited methods formerly employed on the New York Cotton Exchange. Under fiat differences an element of vagueness is injected into the contract, making the hedge a doubtful protection and diffusing uncertainty through commercial transactions in cotton the world over. Under commercial differences, on the other hand, the future contract should be closely responsive to changes in the price of middling cotton for similar deliveries.

It has been objected, by defenders of the fiat difference system, that disturbances of the future market under commercial differences at New Orleans and Liverpool have been as severe as those at New York. So far as the New Orleans market is concerned, this charge is effectively refuted by the report of the Bureau of Corporations. At times the normal relationship of future and spot quotations has not been maintained there. This is apparently due in part to the limited volume of dealings in futures in New Orleans, making that market sensitive to errors in differences or to clique manipulation. The important point is that if errors occur at New Orleans there is opportunity to correct them at once. That such correction has not always been immediate must be charged to human frailty or inertia, and not to an inherent vice in the contract itself. Similar explanations apply to the Liverpool market. There is the added consideration that the Liverpool contract has attempted to provide for the delivery of "extra staple" cotton, *i.e.*, cotton of extra long fibre. Such cotton often fluctuates in value very sharply. A difference of even 1/16 of an inch in length may in some seasons mean a difference of over a cent a pound in value. More important, there is often wide difference of opinion among arbitrators who pass on contract deliveries, not only as to the value of such cotton but even as to the exact length. This causes uncertainty and inconsistency in the awards

of arbitrators and at times has severely disturbed the value of the Liverpool contract in its relation to spot middling.

The obvious remedy for this evil is to forbid or at least discourage the tender of such troublesome cotton on exchange contracts. This was done at both New York and New Orleans by limiting the allowances to be added to the contract price for cotton of extra staple length to a small fraction of a cent per pound. This was virtually a penalty and ordinarily kept such cotton out of deliveries. Under a recent amendment to its rules, moreover, the New York exchange makes no allowance whatever for extra staple cotton unless this is permitted by the Secretary of Agriculture.

However, whether the commercial difference system has worked well or badly at New Orleans or Liverpool becomes a question more or less academic beside the practical consideration that the New York Cotton Exchange is perforce committed to its re-adoption. The real problem now is to assure the commercial difference system at New York a thorough and fair test. Much will depend on the fidelity with which the contract differences are ascertained from day to day. Recognizing that the narrowness of the spot market may at times, or even frequently, fail to afford sufficient basis for close determination of differences, the Cotton Futures act provides that in this event these differences "shall be determined by the average actual commercial differences," on the sixth day prior to the date of delivery "in the spot markets of not less than five places designated for the purpose from time to time by the Secretary of Agriculture."

A practical difficulty arises here because these differences must, under the act, be based on the official cotton standards of the Department of Agriculture, whereas these standards have not yet come into general use in Southern spot markets. To meet this situation the act confers power on the Secretary of Agriculture to prescribe rules by which the differences for such grades as he may select in the open market shall in effect be translated or modified on terms which will make them applicable to the official standards.

This, it may be objected, is merely the substitution of the fiat of a government official for the fiat of an exchange committee. But there is this vital distinction: the differences ascertained by or under the rules of the Secretary of Agriculture can be changed in twenty-four hours if shown to be erroneous, whereas the fiat differences of the revision committee established on the third Wed-

nesday of November could not be changed by the committee, or even by the exchange itself, for nearly a year.

The classification of cotton is not, and cannot be, an exact science, and doubtless differences established under the Cotton Futures act will at times be challenged. A speedy adoption of the official government standards in all large spot markets would greatly facilitate the operation of the act.

Since, ordinarily, changes in the actual differences from day to day or even from week to week are but a small fraction of a cent, the margin of error in ascertaining or approximating that fraction should always be small and usually trifling. A repetition of the experience of 1906-1907, when the New York contract differences for certain grades became a cent or more out of line with those in the spot market, should be virtually impossible.

Therefore, while no system can be ideal in actual operation, a vast improvement is wholly practicable if the cotton trade and especially the New York Cotton Exchange will sincerely co-operate with the federal government. It is gratifying to note that recent changes in the by-laws and rules of the exchange, and the tenor of recent committee reports give assurance of such coöperation. It should be recognized in this connection that a large portion of the members of that exchange, at times even a majority, have long favored a reform of its contract. But as the exchange by-laws required a larger vote on this matter, earlier attempts at reform were unsuccessful.

While the provisions for establishing grade differences are by far the most vital features of the Cotton Futures act, several others should tend to material improvement in organized speculation in cotton. One of these, apparently trifling, but really of great importance, is the clause in section 6, stipulating that every bale of cotton delivered on contract be identified with its grade.

Hitherto no such bale-by-bale identification has been made at New York. While the receiver of cotton on contract was furnished a list of the number of bales of each grade in a tender, he had no ready means of telling which bales were of a particular grade. He would ordinarily have to sample an entire "lot," which on the average includes about 10 bales but which may run anywhere from 1 to 100 bales. This is an expensive and cumbersome process. It is claimed that methods of warehousing in New York, particularly the placing of cotton in high tiers (due to heavy cost of rent), make it impracticable to employ a bale-

by-bale identification with grade, by means of tag or otherwise. That there is a practical difficulty here may be conceded. Apparently it will now be determined by actual test instead of fruitless debate whether this difficulty is insurmountable. Such identification, it may be noted, was recommended some years ago by a committee of the exchange as entirely feasible.

Assurance that these various improvements will be actually secured rests largely on the powers of interference by the Secretary of Agriculture. Not only may he prescribe the methods of determining contract differences but he is constituted an umpire, or referee, in disputes over grade. Back of this is the prohibitive tax of 2 cents per pound on contracts which fail to meet the requirements of the act.

To business men who regret the steady tendency toward more and more government regulation—as distinct from government supervision—of commercial transactions, the power thus conferred on a Cabinet officer appears unfortunate. Whether it will lead to still closer control of cotton exchanges or, extending beyond them, involve other speculative exchanges as well, is by no means the least interesting question prompted by this new legislation. It should be unnecessary to elaborate the moral that adorns the tale.

LUTHER CONANT, JR.